

### **REMARKS/ARGUMENTS**

Reconsideration of this application is requested. Claims 1-6, 8, 10, 14-17, 19 and 20 will be pending in the application subsequent to entry of this Amendment.

#### **Discussion of Amendments to Claims**

The claims have been amended in order to more particularly point out and distinctly claim that which applicants regard as their invention and to address issues raised in the outstanding Official Action.

Four compounds have been deleted from claim 4 and claims 5 and 6 have been amended to revise the first step to require that the camptothecin is substituted with the  $R_1$  group as defined in claim 1 and optionally substituted with the  $R_2$  and  $R_3$  groups.

Claim 18 is canceled in order to reduce issues and new claims 19 and 20 added. Claim 19 is directed to a method of treating a tumor resistant to Topoisomerase I inhibitors by applying to a susceptible tumor an effective amount of a compound of claim 1. Claim 20 defines four specific types of tumors and is based upon the description of the invention in the paragraph bridging pages 13 and 14 of the specification.

The above claim amendments serve to advance examination and are fairly based upon the disclosure of the application as filed. They also address and resolve issues raised in the outstanding Official Action and for this reason alone this Amendment should be entered.

#### **Status of Claim 3**

In the Office Action Summary claim 3 is listed as being "objected to" but is not further treated in any of the remarks that follow in the Action. It was counsel's understanding that claim 3 is regarded as being free of the prior art as well as free of any objections under 35 USC §112, first and second paragraphs and thus has only been rejected as it depends from a claim that is rejected.

The rejections stated in the balance of the Official Action are addressed as follows:

#### **Rejection of Claims 15, 16 and 18 -- Lack of Enablement**

Applicants have carefully studied the examiner's comments in item 3 of the Official Action but believe that these comments fail to take into account the specific wording of the claim which is not, as the examiner argues, directed to "treating every known tumor, parasitic and viral infections with the instant compounds". In fact, applicants' claims are far more precise.

As an illustration of this, note that the wording of claim 15 is “A method of treating a tumor susceptible to treatment with a camptothecin [...] a subject having a susceptible tumor [...]” (emphasis added).

The skilled reader will understand that a tumor susceptible to treatment with camptothecin is a tumor which is not resistant to topoisomerase I inhibitors. Therefore, the skilled practitioner will rely on the state of the art, such as Penco et al. and the references cited in this context, to understand whether the method of this invention is carried out on the proper tumor.

Based on this scientific paradigm, withdrawal of the enablement rejection of claims 15 and 16 is respectfully requested.

Applicants in particular traverse the rejection of claim 16 as it does indeed specify specific types of cancer and in no way is directed to the treatment of "every known tumor, parasite and viral infections" as the examiner asserts in the Action.

In this Amendment additional claims 19 and 20 are submitted, directed to the treatment of tumors resistant to topoisomerase I inhibitors and specific tumors treatable with camptothecins. No new matter is added.

Claim 15 and new claim 19 are fully enabled by the same art of camptothecins. The Examiner states that an alleged burden of experimentation is required to the skilled person to determine if the claimed compounds are active on all known tumors (emphasis added), *see* Office Action, page 3, first paragraph. It is respectfully observed that the claims do not refer to all known tumors but only to camptothecin-respondent tumors. Therefore, the claims are limited to the enablement provided by the description.

Moreover, Applicants would like to be informed how the examiner defines “undue experimentation”. The person of ordinary skill in the art of medicinal chemistry and pharmacology is always faced with a certain practice of standard experimentation. For example, it will be very easy to the skilled person to test the claimed compounds on any tumor cell line and to verify antitumor activity, just resorting to common practice. Therefore, the skilled person will be able to put the invention into practice by simply performing ordinary tests.

Claim 18 has been deleted.

Withdrawal of lack of enablement rejection is respectfully requested.

Response to Rejection of Claims 15 and 18 as Being Indefinite

Item 6, top of page 4 of the Official Action complains that claims 15 and 18 are indefinite. Claim 18 has been deleted thus that part of the rejection is moot. As to claim 15, it would appear that this rejection is the counterpart to the enablement rejection discussed in the previous section. Applicants have already stated their arguments and position with respect to the enablement rejection. Claim 15 is clear and would be readily understood by one having ordinary skill in this art to be directed to a method of treating a tumor susceptible to treatment with a camptothecin compound and that the treatment is carried out in a subject having a tumor susceptible to such treatment. This is in no way indefinite. Reconsideration is requested.

Rejection of Claims 1, 2, 4, 6, 8, 10 and 14-17 as Being Unpatentable

These claims are again rejected as being unpatentable over the prior art of record and applicants again disagree with the examiner's position.

An obviousness rejection is to be expected when the state of the art reflects the invention, in its entirety or via a combination of elements. The claimed compounds are camptothecin derivatives, whose chemical structure is so different from the peptides disclosed in Matsumoto that the skilled person cannot predict whether Matsumoto teaching is applicable to the instant case.

Arguments presented in the previous response are not repeated here but still relied on.

It would appear that the prior art rejection is based upon a contrived understanding (or misunderstanding) of the applied prior art. This includes non-helpful statements that "The structure of the compound is not critical as long as the compound has (a) hydroxyl group ...". With respect, applicants are not claiming all compounds having the hydroxyl group. Instead, their claims are carefully crafted and directed to a specific group of compounds which may be employed for therapy and therapeutic benefits stated in applicants' claims, in particular claims 15, 16, 19 and 20. Taken to its "logical" end, the rejection could be taken to the point where any compound having an oxygen group would also be obvious.

The Examiner's argument that the structure of the compound is not critical is completely wrong and without technical basis. For example, benzene is water insoluble, phenol (hydroxybenzene) is water-soluble. Naphthalene is water insoluble, hydroxynaphthalene too.

It is respectfully requested the Examiner reconsiders this rejection, since no logical technical basis can be found.

Response to New Grounds of Rejection

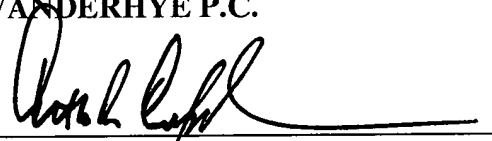
In reviewing item 8 of the Official Action, applicants agree. Claims 4, 5 and 6 have been suitably amended, as explained above, to deal with these points and resolve them.

Reconsideration, entry of this Amendment, and favorable action are solicited.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_



Arthur R. Crawford  
Reg. No. 25,327

ARC:eaw  
901 North Glebe Road, 11th Floor  
Arlington, VA 22203-1808  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100